Fig. 1

ROM 29 CONTENTS

SYSTEM INIT CODE
AUTHENTICATION PROGRAM
LOADER PROGRAM (PART 1)

ROM 30 CONTENTS

OPERATING SYSTEM PROGRAM
SYSTEM DRIVERS
EXECUTIVE LOADER PROGRAMS (PART 2)

MASS STORAGE CONTENTS

36	LOADABLE DATA SET (APPLICATION PROGRAMS)
37	SIGNATURES

ROM 29 AUTHENTICATION PROGRAM

32	MESSAGE DIGEST PROGRAM
33	DECRYPTION PROGRAM
34	DECRYPTION KEY

Fig. 3

Fig. 2

LOADABLE
DATA SET ⟍36

HASH
FUNCTION ⟍41

MESSAGE
DIGEST ⟍42

STORE
IN MASS
STORAGE
UNIT

PRIVATE
KEY ⟍44

ENCRYPTION
PROGRAM ⟍43

SIGNATURE ⟍37

Fig. 4

LOADABLE
DATA SET ⟍36

SIGNATURE ⟍37

HASH
FUNCTION ⟍41

COMPUTED
MESSAGE
DIGEST ⟍46

COMPARE

MATCH
(PERMIT GAME PLAY)

NO MATCH
(PROHIBIT GAME PLAY

DECRYPTION
PROGRAM ⟍33

DECRYPTED
MESSAGE
DIGEST ⟍47

DECRYPTION
KEY ⟍34

Fig. 5

| ROM 50 | BIOS 52 |

ROM 54	BOOT STRAP 56
	OS 58
	OS DRIVERS 60
	SECURE LOADER 62
	SIGNATURES 63

MASS STORAGE 18

ANCHOR APPLICATION 64

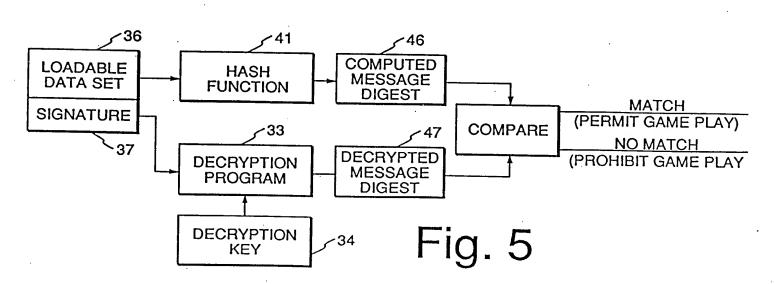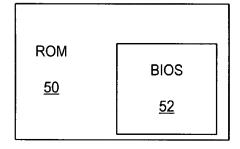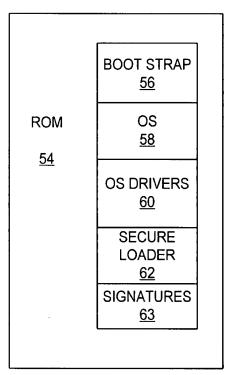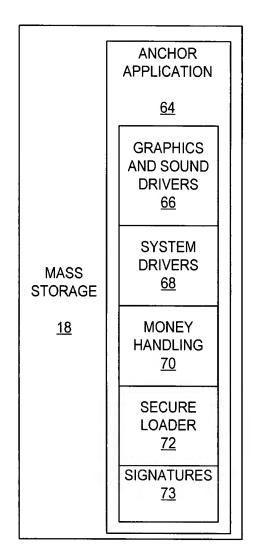| GRAPHICS AND SOUND DRIVERS 66 |
| SYSTEM DRIVERS 68 |
| MONEY HANDLING 70 |
| SECURE LOADER 72 |
| SIGNATURES 73 |

GAME DATA SET 75

EXTERNAL SOURCE 76

FIG. 6

100
↙

(START)

┌───┐ ⌐ 102
│   LOAD BIOS FROM 1ST ROM TO MAIN MEMORY   │
└───┘
                            │
                            ▼
┌───┐ ⌐ 104
│ LOAD BOOTSTRAP, OS, OS DRIVERS, FIRST SECURE LOADER, AND │
│ FIRST AUTHENTICATION PROGRAM FROM SECOND ROM INTO MAIN   │
│ MEMORY.   │
└───┘
                            │
                            ▼
┌───┐ ⌐ 106
│ ACCESS ANCHOR APPLICATION (INCLUDING GRAPHICS AND SOUND   │
│ DRIVERS, SYSTEM DRIVERS, MONEY HANDLING DATA SETS, SECOND │
│ SECURE LOADER, AND SECOND AUTHENTICATION PROGRAM) IN MASS │
│ STORAGE MEANS   │
└───┘
                            │
                            ▼
┌───┐ ⌐ 108
│   DETERMINE VALIDITY OF ANCHOR APPLICATION USING FIRST   │
│   AUTHENTICATION PROGRAM.   │
└───┘
                            │
                            ▼
                                                    ┌──────────────┐
                     ⌐ 110   │   PROHIBIT   │ ⌐ 112
                 ◇ ANCHOR ◇   ──NO─▶   │ LOADING OF │
                 ◇ VALID ? ◇   │   ANCHOR   │
                                                    │ APPLICATION │
                     │   └──────────────┘
                    YES
                     ▼   ⌐ 114
┌───┐
│   LOAD ANCHOR APPLICATION INTO MAIN MEMORY.   │
└───┘
                            │
                            ▼   ⌐ 116
┌───┐
│   ACCESS GAME DATA SET OR GAME MODIFYING DATA SET.   │
└───┘
                            │
                            ▼   ⌐ 118
┌───┐
│ DETERMINE VALIDITY OF GAME DATA SET OR GAME MODIFYING   │
│ DATA SET USING SECOND AUTHENTICATION PROGRAM   │
└───┘
                            │
                            ▼
                                                    ┌──────────────┐
                     ⌐ 120   │   PROHIBIT   │
              ◇ NEW GAME OR ◇   │ LOADING OF │
              ◇ GAME MODIFYING ◇ ──NO─▶   │GAME DATA SET │
              ◇ DATA SET VALID ? ◇   │ OR GAME-   │
                                                    │ MODIFYING   │
                     │   │   DATA SET   │
                    YES   └──────────────┘
                     ▼   122 ⌐ ⌐ 124
┌───┐
│   LOAD GAME DATA SET OR GAME MODIFYING DATA SET.   │
└───┘
                            │
                            ▼
                        (RETURN)

                        FIG. 7